

In The Claims:

Please enter replacement claims 1728, 1732, 1733, 1738, 1739 and 1743 as follows:

Clean Version of Replacement Claims

1728. (Twice Amended) The process of any of claims 1700, 1701, 1702 or 1704, wherein in said providing step, the chelating compounds or chelating components provide a detectable signal that is radioactive, chromogenic, fluorogenic, fluorescent, chemiluminescent, electron dense or magnetic.

1732. (Twice Amended) The process of any of claims 1700, 1701, 1702, 1703 or 1704, wherein said detecting step is carried out by a compound or component that is radioactive, chromogenic, fluorogenic, fluorescent, chemiluminescent, electron dense or magnetic.

1733. (Amended) The process of any of claims 1700, 1701, 1702, 1703 or 1704, wherein in said detecting step, the chelating compounds or chelating components have chelated a metal or metal ion selected from the group consisting of heavy metals and rare earth metals.

1738. (Amended) The process of claim 1735, wherein said radioactive detection is carried out with an isotope selected from the group consisting of bismuth-206, bismuth-207, cobalt-60, gadolinium-153, strontium-90 and yttrium-90.

1739 (Amended) The process of any of claims 638, 640, 674, 676, 790, 792, 826, 828, 942, 944, 978, 980, 1094, 1096, 1130 or 1132, wherein said fluorescent aromatic or cycloaliphatic group comprises a fluorescent dye.

1743. (Amended) The process of any of claims 569, 721, 873, 1025, 1177, 1700, 1701, 1702, 1703 or 1704, wherein said base analogs are selected from the group consisting of analogs of pyrimidine, purine and 7-deazapurine.

Add new claims 1749-1766 as follows:

-- 1749. (NEW) The process of any of claims 1706, 1708, 1709, 1710 or 1711, wherein in said providing step, the chelating compounds or chelating components provide a detectable signal that is radioactive, chromogenic, fluorogenic, fluorescent, chemiluminescent, electron dense or magnetic. --

-- 1750. (NEW) The process of any of claims 1705, 1706, 1707, 1708, 1709, 1710 or 1711, wherein said detecting step is carried out by a compound or component that is radioactive, chromogenic, fluorogenic, fluorescent, chemiluminescent, electron dense or magnetic. --

-- 1751. (NEW) The process of any of claims 1705, 1706, 1707, 1708, 1709, 1710 or 1711, wherein in said detecting step, the chelating compounds or

chelating components have chelated a metal or metal ion selected from the group consisting of heavy metals and rare earth metals. --

-- 1752. (NEW) The process of claim 1751, wherein said heavy metal comprises cobalt. --

-- 1753. (NEW) The process of claim 1750, wherein said detecting step is carried out radioactively. --

-- 1754. (NEW) The process of claim 1753, wherein said radioactive detection is carried out by means of an isotope. --

-- 1755. (NEW) The process of claim 1754, wherein said isotope is a β or γ emitter. --

-- 1756. (NEW) The process of claim 1753, wherein said radioactive detection is carried out with an isotope selected from the group consisting of bismuth-206, bismuth-207, cobalt-60, gadolinium-153, strontium-90 and yttrium-90. --

-- 1757. (NEW) The process of any of claims 1354, 1356, 1450, 1452, 1512, 1514, 1652 or 1654, wherein said fluorescent aromatic or cycloaliphatic group comprises a fluorescent dye. --

-- 1758. (NEW) The process of claims 1373 or 1671, wherein said non-radioactively modified or labeled nucleotides or nucleotide analogs are labeled with the same indicator molecules. --

-- 1759. (NEW) The process of claims 1373 or 1671, wherein said non-radioactively modified or labeled nucleotides or nucleotide analogs are labeled with different indicator molecules. --

-- 1760. (NEW) The process of any of claims 1298, 1473, 1474, 1475, 1476, 1582, 1705, 1706, 1707, 1708, 1709, 1710, 1711 or 1712, wherein said base analogs are selected from the group consisting of analogs of pyrimidine, purine and 7-deazapurine. --

-- 1761. (NEW) The process of claim 1760, wherein said purine analogs are selected from the group consisting of thymidine analogs, uridine analogs, deoxyuridine analogs, cytidine analogs and deoxycytidine analogs. --

-- 1762. (NEW) The process of claim 1761, wherein said uridine analogs comprise 5-bromo-2'-deoxyuridine-5'-phosphate. --

-- 1763. (NEW) The process of claim 1761, wherein said deoxycytidine analogs comprise 5-hydroxymethyl-2'-deoxycytidylic acid. --

-- 1764. (NEW) The process of claim 1760, wherein said purine analogs are selected from the group consisting of adenosine analogs, deoxyadenosine analogs, guanosine analogs and deoxyguanosine analogs. --

-- 1765. (NEW) The process of claim 1764, wherein said adenosine analogs are selected from the group consisting of tubercidin and toyocamycin. --

-- 1766. (NEW) A process for determining the sequence of a nucleic acid of interest, comprising the steps of:

providing or generating detectable non-radioactively labeled nucleic acid fragments, each fragment comprising a sequence complementary to said nucleic acid of interest or to a portion thereof, wherein each of said fragments comprises one or more detectable non-radioactively modified or labeled nucleotides or nucleotide analogs, which nucleotide analogs can be attached to or coupled to or incorporated into DNA or RNA;

subjecting said detectable non-radioactively labeled fragments to a sequencing gel to separate or resolve said fragments; and

detecting non-radioactively the presence of each of said separated or resolved fragments by means of said detectable non-radioactively modified or labeled nucleotides or nucleotide analogs, and determining the sequence of said nucleic acid of interest. --

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